P02 03860

Érvényes MSZH e-lajstrom

Ügyszám: **P0201626** *Bejelentés napja:* 2000.05.31

Közzététel napja: 2002.12.28 HU P0201626

Uniós elsőbbség: US60137815 - 1999.06.04

PCT bejelentés száma: US0015383

PCT közzététel száma (WO): 0074650

NSZO: A61K-009/06; A61K-009/22; A61K-047/34

Cím: **Beültethető gélkészítmények és eljárás gyártásukra**

Angol cím: IMPLANTABLE GEL COMPOSITIONS AND METHOD OF MANUFACTURE

Bejelentő: Alza Corporation, Mountain View, Kalifornia (US)

Feltaláló: Pushpala, Shamim J., Sunnyvale, Kalifornia (US)
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Képviselő: Kovári György, ADVOPATENT Szabadalmi és Védjegy Iroda, Budapest (HU)

Kivonat (közzétételi):

A találmány olyan eljárásokra és készítményekre vonatkozik, amelyek alkalmazásával beültethető rendszerekből származó hasznos (jótékony) hatóanyag kezdeti „robbanási" hatása csökkenthető. A készítményeket úgy állítják elő, hogy egy bioerodibilis vivőanyagot és egy abban diszpergált hatóanyagot állítanak elő úgy, hogy a hatóanyag és egy csekély vízoldhatósággal jellemzett ágens keveréknek préselt anyagtestté formálásával, ezt az anyagtestet aprítva a hatóanyag és a csekély vízoldhatósággal jellemzett ágens keverékének préselt szemcséivé alakítják, majd a préselt szemcséket a vivőanyag egészében diszpergálják.

A készítmény előnye az eddigiekkel szemben abban áll, hogy a préselés következtében a hatóanyag lassabban oldódik, és így a kezdeti „robbanási" hatás (azaz a hatóanyag kezdeti, túlságosan gyors oldódása) csökkenthető vagy elkerülhető.

Intézkedések

3. Nemzetközi bejelentés közzététele (A2) (QJ)
Intézkedés kelte: 2002.11.04 *meghirdetése:* 2002.12.28 (BB9A Szabadalmi bejelentések közzététele)

HU P0201626

Derwent Record

View: Expand Details Go to: Delphion Integrated View

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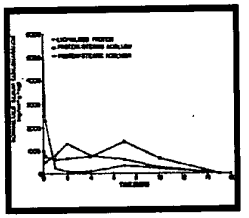
Derwent Title: **Bioerodible implantable gel composition comprising particles of a compressed mixture of an active agent and a low water solubility agent, used for drug delivery**

Original Title: WO0074650A2: IMPLANTABLE GEL COMPOSITIONS AND METHOD OF MANUFACTURE



Assignee: **ALZA CORP** Standard company
Other publications from ALZA CORP (ALZA)...

Inventor: **BRODBECK K J; PRESTRELSKI S J; PUSHPALA S J;**

Accession/ Update: **2001-091139 / 200418**

IPC Code: **A61K 0/00 ; A61K 9/00 ; A61K 9/06 ; A61K 9/10 ;** A61K 9/22 ; A61K 31/711 ; A61K 31/727 ; A61K 38/00 ; A61K 38/21 ; A61K 38/22 ; A61K 38/26 ; A61K 38/27 ; A61K 38/48 ; A61K 47/12 ; A61K 47/14 ; A61K 47/34 ; A61K 47/44 ; A61P 5/00 ; A61P 5/06 ; A61P 5/18 ; A61P 5/24 ; A61P 7/04 ;

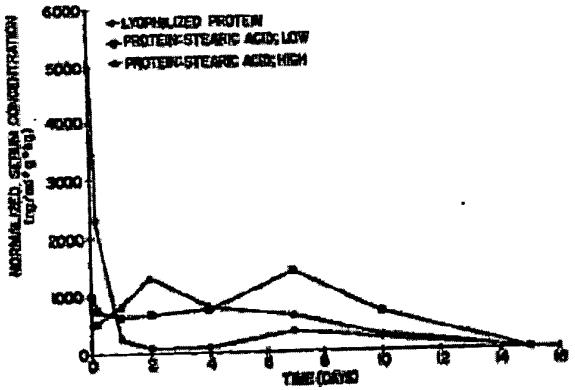
Derwent Classes: A96; B04; A23;

Manual Codes: **A05-E02**(From saturated, (cyclo)aliphatic, dicarboxylic acids and dihydric alcohols or phenols; hydroxyacids) , **A12-V01**(Medicines, pharmaceuticals) , **B04-B01B**(Fats, lanolin, lipids) , **B04-C02E1** (Heparin (optionally modified)) , **B04-C03B**(Other addition) , **B04-E01**(Nucleic acid general and other) , **B04-H02A**(Interleukin 1) , **B04-H02B**(Interleukin 2) , **B04-H05**(Interferons General and other) , **B04-H07**(Erythropoietin (Epo)) , **B04-H19**(Clotting factors) , **B04-J01**(Hormones general and other) , **B04-J03B**(Glucagon) , **B04-J04A**(Calcitonin) , **B04-J05H**(Gonadotropins) , **B04-N04** (Protein/polypeptide of undefined origin (No sequence)) , **B11-C04A**(Implant) , **B12-M10A**(Sustained release)

Derwent Abstract: (WO0074650A) **Novelty** - A composition comprising particulates comprising a compressed mixture of an active agent (I) and an agent (II) with low water solubility, dispersed in a carrier, is new.
Detailed Description - An INDEPENDENT CLAIM is also included for a process for preparing an implantable composition comprising (I) dispersed in a bioerodible carrier comprising:
(a) forming a compressed body of (I) and (II);
(b) crushing to form compressed particulates of (I) and (II); and
(c) dispersing throughout the carrier.
Use - For producing implantable compositions used for controlled release of drugs and other agents,

Advantage - The compositions reduce the burst of beneficial agents from implantable systems.

Images:



Description of Drawing(s) - The figure shows the in vitro release profiles of lysozyme obtained in a USP dissolution bath of a phosphate buffer medium at 100 revolutions per minute from three different implant compositions comprising a poly(lactide-co-glycolic) acid (PLGA) polymer gel, in which lysozyme is alone in the polymer gel (square), present as a compressed mixture with stearic acid (triangles) or compressed in mixture with palmitic acid (circles).
Dwg. /6

Family:

PDF Patent	Pub. Date	Derwent Update	Pages	Language	IPC Code
WO0074650A2 *	2000-12-14	200110	58	English	A61K 9/06
Des. States:	(N) AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZW (R) AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW				
Local appls.:	WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)				
NZ0515911A =	2004-02-27	200418		English	A61K 9/06
Local appls.:	Div in NZ00530701 (NZ 530701) Based on WO00074650 (WO 200074650) NZ2000000515911 Filed:2000-05-31 (2000NZ-0515911) WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)				
CN1460018A =	2003-12-03	200413		English	A61K 9/06
Local appls.:	CN2000000808477 Filed:2000-05-31 (2000CN-0808477)				
ZA0109970A =	2003-02-26	200321	77	English	A61K 0/00
Local appls.:	ZA2001000009970 Filed:2001-12-04 (2001ZA-0009970)				
JP2003501375W =	2003-01-14	200306	66	English	A61K 9/10

Local appls.: Based on WO00074650 (WO 200074650)
JP2001000501187 Filed:2000-05-31 (2001JP-0501187)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)

☑ HU0201626A2 =	2002-12-28	200308	English	A61K 9/06

Local appls.: Based on WO00074650 (WO 200074650)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)
HU2002000001626 Filed:2000-05-31 (2002HU-0001626)

☑ MX1012471A1 =	2002-08-01	200367	Spanish	A61K 9/06

Local appls.: Based on WO00074650 (WO 200074650)
MX2001000012471 Filed:2001-12-04 (2001MX-0012471)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)

CZ0104338A3 =	2002-03-13	200223	English	A61K 9/06

Local appls.: Based on WO00074650 (WO 200074650)
CZ2001000004338 Filed:2000-05-31 (2001CZ-0004338)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)

▩ EP1183010A2 =	2002-03-06	200224	English	A61K 9/06

Des. States: (R) AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Local appls.: Based on WO00074650 (WO 200074650)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)
EP2000000939558 Filed:2000-05-31 (2000EP-0939558)

KR2011995A =	2002-02-09	200257	English	A61K 9/00

Local appls.: KR2001000715641 Filed:2001-12-04 (2001KR-0715641)

NO0105888A =	2002-01-31	200223	NO_NO	A61K 0/00

Local appls.: NO2001000005888 Filed:2001-12-03 (2001NO-0005888)
WO2000US0015383 Filed:2000-05-31 (2000WO-US15383)

☑ AU0054629A =	2000-12-28	200119	English	A61K 9/06

Local appls.: Based on WO00074650 (WO 200074650)
AU2000000054629 Filed:2000-05-31 (2000AU-0054629)

INPADOC Legal Status: Show legal status actions

Claims: [Hide claims]:

1.. A composition comprising a carrier and particulates comprising a compressed mixture of an active agent and an agent exhibiting a characteristic of low solubility in water, the particulates being dispersed within the carrier.

2.The composition of claim 1 wherein the agent exhibiting the characteristic of low solubility in water is hydrophobic and

the carrier is a biocompatible gel.

3.The composition of claim 1 wherein the hydrophobic agent is selected from the group consisting of pharmaceutically acceptable oil, fats, fatty acids, fatty acid esters, waxes and mixtures and derivatives thereof that exhibit the hydrophobic characteristic. 1 5

4.The composition of claim 3 wherein the hydrophobic agent is selected from the group consisting of C16 - C24 fatty acids, esters and pharmaceutically-acceptable salts thereof, and mixtures of the foregoing.

5.The composition of claim 4 wherein the hydrophobic agent comprises a mixture of stearic acid and palmitic acid.

6.The composition of claim 5 wherein the stearic acid and the palmitic acid together constitute at least 90% by weight of the fatty acids of the hydrophobic agent and the stearic acid constitutes at least 40% by weight of the fatty acids of the hydrophobic agent.

7.The composition of claim 6 wherein the stearic acid and the palmitic acid together constitute at least 96% by weight of the fatty acids of the hydrophobic agent and the stearic acid constitutes at least 90% by weight of the fatty acids of the hydrophobic agent.

8.The composition of claim 1 wherein the particulates comprise a powder.

9.The composition of claim 1 wherein the powder has a particle size such that 90% passes through a 50 mesh screen and are retained on a 400 mesh screen.

10.The composition of claim 1 wherein the active agent is water soluble.

11.The composition of claim 1 0 wherein the active agent is selected from the group consisting of DNA, cDNA, proteins, peptides and fragments and derivatives thereof.

12.The composition of claim 1 0 wherein the carrier comprises a polymer selected from the group consisting of polylactic acid, polyglycolic acid and poly(lactide-co-glycolic) acid and a solvent comprising an alkyl or aralkyl ester of benzoic acid.

13.The composition of claim 12 wherein the active agent is selected from the group consisting of human growth hormone, alpha-, beta- or gammainterferon, erythropoietin, glugacon, calcitonin, heparin, interleukin-1, interieukin-2, Factor VIII, Factor IX, luteinizing hormone, relaxin, folliclestimulating hormone, atrial natriuretic factor and filgrastim.

14.The composition of claim 13 wherein the polymer is poly(lactide-coglycolic) acid and the solvent is benzyl benzoate.

15.The composition of claim 14 wherein the polymer is poly(lactide-coglycolic) acid and the solvent is ethyl benzoate.

16.A composition comprising: (a) a bioerodible gel comprising a polymer selected from the group consisting of polylactic acid, polyglycolic acid, and poly(lactide-co-glycolic) acid; (b) a solvent selected from the group consisting of an alkyl or aralkyl ester of benzoic acid; and (c) particulates dispersed within the gel, said particulates comprising a compressed mixture of an active agent and an agent exhibiting a characteristic of low solubility in water selected from the group consisting of pharmaceutically acceptable oils, fats, fatty acids, fatty acid esters, waxes, derivatives thereof, and mixtures of the foregoing.

17.The composition of claim 16 wherein the agent exhibiting the characteristic of low solubility in water is hydrophobic.

18.The composition of claim 17 wherein the hydrophobic agent is selected from the group consisting of C16- C21fatty acids, esters and pharmaceuticallyacceptable salts thereof, and mixtures of the foregoing.

19.The composition of claim 18 wherein the hydrophobic agent comprises a mixture of stearic acid and palmitic acid.

20.The composition of claim 19 wherein the stearic acid and the palmitic acid together constitute at least 90% by weight of the fatty acids of the hydrophobic agent and the stearic acid constitutes at least 40% by weight of the fatty acids of the hydrophobic agent.

21.The composition of claim 20 wherein the stearic acid and the palmitic acid together constitute at least 96% by weight of the fatty acids of the hydrophobic agent and the stearic acid constitutes at least 90% by weight of the fatty acids of the hydrophobic agent.

22.The composition of claim 21 wherein the particulates comprise a powder.

23.The composition of claim 22 wherein the powder has a mean particle size of about 30 microns to about 500 microns.

24.The composition of claim 23 wherein the active agent is water soluble.

25.The composition of claim 24 wherein the active agent is selected from the group consisting of DNA, cDNA, proteins,

peptides and fragments and derivatives thereof.

26.The composition of claim 24 wherein the gel comprises poly(lactide-coglycolic) acid.

27.The c'ornposition of claim 24 wherein the active agent is selected from the group consisting of human growth hormone, alpha-, beta- or gamma1 5 interferon, erythropoietin, glugacon, calcitonin, heparin, interleukin-1 , interleukin-2, Factor VIII, Factor IX, luteinizing hormone, relaxin, folliclestimulating hormone, atrial natriuretic factor and filgrastim.

28.The composition of claim 27 wherein the solvent is benzyl benzoate and the active agent is human growth hormone.

29.The composition of claim 27 wherein the solvent is ethyl benzoate and the active agent is human growth hormone.

30.A process for the preparation of an implantable composition comprising a bioerodible carrier having dispersed therein an active agent that comprises forming a compressed body of a mixture of the active agent and an agent exhibiting a characteristic of low solubility in water, crushing the body to form compressed particulates of the mixture of the active agent and the agent exhibiting a characteristic of low solubility in water, and dispersing the compressed particulates throughout the carrier.

31.The process of claim 30 wherein the active agent is water soluble and the agent exhibiting a characteristic of low solubility in water is hydrophobic.

32.The process of claim 31 wherein the active agent is selected from the group consisting of protein and polypeptide and the hydrophobic agent is selected from the group consisting of stearic acid, palmitic acid and myristic acid.

33.The process of claim 32 wherein the protein is human growth hormone and the hydrophobic agent is stearic acid.

34.The process of claim 31 wherein the active agent is selected from the group consisting of cDNA, DNA, proteins, peptides and fragments and derivatives thereof.

35.The process of claim 31 wherein the active agent is selected from the group consisting of human growth hormone, alpha-, beta- or gammainterferon, erythropoietin, glugacon, calcitonin, heparin, interieukin-1, interleukin-2, Factor VIII, Factor IX, luteinizing hormone, relaxin, folliclestimulating hormone, atrial natriuretic factor and filgrastim. †

Priority Number:

Application Number	Filed	Original Title
US1999000137815P	1999-06-04	

Chemical Indexing Codes: Show chemical indexing codes

Extended Polymer Index: Show extended polymer index

Specific Compound Numbers: Show specific compounds

Registry Numbers:
13[M1]:**1867U**
14[M1]:**1874U**
02[M2]:**0603U**
03[M2]:**1000U**
20[M2]:**0121U**
21[M2]:**0122U**

Unlinked 0121U 0122U 0603U 1000U 1867U 1874U

Registry Numbers:

Related Accessions:

Accession Number	Type	Derwent Update	Derwent Title
C2001-026754	C		
1 item found			

Title Terms: IMPLANT GEL COMPOSITION COMPRISE PARTICLE COMPRESS MIXTURE ACTIVE AGENT LOW WATER SOLUBLE AGENT DRUG DELIVER